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ABSTRACT

This booklet focuses on reform of the professional portion of initial teacher preparation. Following an introduction entitled "Professional Education Under Attack," the booklet is organized into three sections. The first section evaluates the validity of four common criticisms of professional education of teachers, including those made by proponents of the academic reform model. These criticisms include claims that education courses are vapid, segmented, impractical, and directionless. The second section presents three reform proposals: the academic model; the research on teaching model, associated with the knowledge-base movement of the 1980s; and John Goodlad's collaborative model. The discussion of the models includes the extent to which these three proposals address the four common criticisms of professional study. The third section speculates about the kind of structural reform in teacher education that seems desirable and feasible in light of the characteristics and underlying assumptions of the three reform models. Whether a collaborative approach can bring together the forces that are currently divided is problematic, but, it is concluded, such a development may well be the best opportunity to retain and renew professional education for teachers. (Contains 46 references.) (LL)

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Restructuring Teacher Education

Alan R. Tom

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Restructuring Teacher Education

by
Alan R. Tom

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These chapters sponsor this fastback in memory of Wayne R. King, who was serving as area coordinator of Area 6G at the time of his death. He was administrator in the Rochester City School District and a member of the Rochester New York Chapter for almost 20 years. His professional involvement at local, state, national, and international levels demonstrated his enthusiasm for and commitment to public education. The memory of Wayne King will be with us always.

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Professional Education Under Attack

Not since James Conant published *The Education of American Teachers* in the 1960s has the reform of teacher education received so much sustained critical attention. Then, as now, the most radical reform proposals focused on the professional portion of initial teacher preparation.

In discussing the education of prospective secondary teachers, Conant (1963) argued that teachers should major in the discipline they will teach and have 60 more credit hours of general education. He also recommended a reduced professional curriculum of no more than 12 to 18 semester hours of professional study, with 9 of these hours being devoted to special methods and student teaching. Conant opposed such typical education course requirements as an "eclectic" introductory course in education, a general methods course, or any course labeled as "social foundations." On the other hand, he believed that the study of "the history of our American schools" might be desirable, but only if "a competent historian is available to give a course on the subject" (Conant 1963, p. 170). The knowledge of psychology needed by a secondary teacher did not extend beyond the content "given in a good course in general psychology required as part of a general education" (p. 171), though an elementary teacher might be exposed to a course in child growth and development. The core professional preparation for the secondary teacher was to be a special methods course offered in conjunction with student teaching, with

both experiences under the direction of a "clinical professor" appointed for a term from the ranks of skilled and knowledgeable master teachers.

Like many current teacher education reform proposals, Conant's recommendations for combining the rigorous academic preparation of teachers with practical experience in special methods and secondary classrooms is an example of the "academic" reform tradition in American teacher education (Zeichner and Liston 1990). People who adhere to this tradition believe that the best preparation for teachers is a "sound liberal arts education" supplemented by "an apprenticeship experience in a school" (p. 5). Professional study, if not eliminated, is to be de-emphasized.

The belief that learning to teach entails only knowing one's subject well and having the opportunity to practice it under the watchful eyes of a master teacher is a belief that persists unabated, especially among arts and sciences professors (see Hilton 1990; Lloyd-Jones 1990) and often among classroom teachers who view their professional preparation as unrealistic and impractical.

Some of the current restructuring proposals for teacher education also minimize the value of professional education for teachers. The most radical are the so-called alternative certification programs. Such programs usually limit professional study and emphasize on-the-job mentoring by experienced teachers. Some states even have truncated standard certification programs, putting caps on the number of education hours that can be required of preservice teachers. In addition, the National Board for Professional Teaching Standards has decided that graduation from a teacher education program need not be a prerequisite for board certification; eligibility for such certification – analogous to board certification in other occupations – requires only that the candidate have a baccalaureate degree and three years of successful teaching experience.

One obvious question is whether these varied forms of radical restructuring are wise policy. If the academic reform model is not sound,

then how should professional education of teachers be restructured, if at all? Merely summarizing the arguments pro and con about the value of professional education for teachers is unlikely to throw much light on whether it deserves to be maintained and cultivated. Prior rounds of such debate have been vigorous, even vituperous, but end up being inconclusive. And we still are faced with reform proposals similar to those Conant formulated 30 years ago.

In this fastback I first evaluate the validity of four common criticisms of professional education of teachers, including those made by proponents of the academic reform model. These criticisms include the claims that education courses are vapid, impractical, segmented, and directionless. Second, I explore the assumptions of the academic reform model and of two other well-known reform proposals for teacher education (the research on teaching model and the collaboration model), including the extent to which these three proposals address the four common criticisms of professional study. Last, I speculate briefly about what kind of structural reform in teacher education seems desirable – and feasible – in light of the characteristics and underlying assumptions of the three reform models.

Four Common Criticisms of Professional Education

Certain criticisms of professional education for teachers have surfaced again and again, much like the targets in a carnival shooting gallery. I focus on four of the most persistent of these targets, ones that the defenders of teacher education seem unable to knock down once and for all. Indeed, some of the most frequently recurring criticisms are launched from inside the teacher education establishment. As indicated, I shall focus on the criticisms that education courses are vapid, impractical, segmented, and directionless. For each criticism, I discuss both its nature and the strength of its argument.

Vapid Education Courses

Sixty years ago, Abraham Flexner, perhaps best known for his efforts to reform medical education, initiated an attack on teacher education courses that has haunted the field ever since. Flexner contended that education courses were superficial because they covered pedagogical material that could be learned better in an apprentice teaching situation. "Why," observed Flexner "should his attention [the prospective teacher] be diverted during these pregnant years to the trivialities and applications with which common sense can deal adequately when the time [to teach] comes?" (quoted by Zeichner and Liston 1990, p. 4). Thirty years later Conant (1963) claimed that teacher education students he interviewed during his study made "re-

peated comments that most of the educational offerings were 'Mickey Mouse' courses" (p. 12). Similarly, after observing education courses and talking to education faculty and students in 63 institutions, James Koerner (1963) of the Council for Basic Education was even more pointed when he asserted that "most education courses are vague, insipid, time-wasting adumbrations of the obvious" (p. 56). Such charges are once again prevalent (see Leslie and Lewis 1990).

While granting that some education courses are insipid, many teacher educators question how representative this judgment is for all education courses, either now or 30 years ago when Conant and Koerner were studying teacher education. Zeichner (1988), for example, points out that critics of the intellectual quality of education courses have relied on "very sketchy observational data" rather than "on careful analyses of course content and academic demands or on carefully documented observations of classroom interactions" (pp. 9-10). This failure to systematically study the curriculum content and classroom processes of education courses – also characteristic of university-level arts and sciences instruction – is in marked contrast to extensive studies of the content and processes of the lower schools.

The only relatively systematic research about the quality of education courses is from surveys of student opinion. One of the earliest reported surveys was conducted at the University of Wisconsin-Madison in the late 1950s in which 1,038 students reacted to the intellectual character and professional utility of the required courses in education. These courses also were compared to the non-education courses taken by teacher education students. Whereas 50% of the students expressed overall satisfaction with education courses, only 28% declared overall satisfaction with education courses in comparison to non-education courses. "This survey," notes Zeichner (1988, p. 12), "reveals a pattern of response that was to become common in later surveys of this type where education courses are viewed as less satisfying than academic courses, with the one exception of student teaching which is judged as the most satisfying experience of all."

Koerner (1963), in addition to his informal interviews of students and observations of education classes, also conducted a fairly extensive questionnaire study of recent graduates from a variety of institutions. Of the 218 (out of 376) respondents who commented at some length on their questionnaires, "3 were strongly favorable in evaluating their professional education, and 62 were somewhat favorable; 152 (or 70 percent) were unfavorable, either somewhat or strongly" (p. 108).

However, recent surveys suggest that student perceptions of the academic quality of education courses may be changing. In a 1986 survey of 97 teacher education students from three relatively large state universities, researchers from the National Center for Research in Teacher Education found that "at least two-thirds of the respondents felt that education courses were at least as demanding, rigorous, etc., as non-education courses" (Zeichner 1988, p. 17). Similar findings resulted from a larger survey sponsored by the American Association of Colleges for Teacher Education, with more then one-third of the teacher education students reporting that their education program was "more rigorous than most other non-education majors" (Zeichner 1988, Table 10; also Howey 1989). It is indeed possible, at least in terms of academic quality, that "our common sense notions about what students think about their [education] courses may need to be altered" (Zeichner 1988, p. 18).

Impractical Education Courses

A second criticism suggests that education courses do not embody the practical knowledge and skills needed by the beginning teacher. In response to a *Newsweek* article (1 October 1990) on the failure of teacher education, a high school history teacher commented:

> My colleagues rarely discuss teaching without marveling at the absolutely worthless teacher-education courses. . . . Most of these courses had nothing to do with survival in the classroom. Many were taught

> by professors who had grand theories but little or no teaching experience. My colleagues and I agree on two remedies mentioned in your article: teacher-training programs should offer more liberal-arts courses and should require a year of student teaching. If a prospective teacher doesn't have the first, he or she won't make it through the second. And without the second, the first is strictly academic. (Lyndaker 1990, p. 12)

This teacher's comment echoes many of the responses that Koerner (1963) received 30 years ago from the teachers who responded to his questionnaire with such comments as "I feel the 'so-called' methods courses I had failed completely in giving me a realistic or practical understanding of education" (p. 113) or "With the possible exception of student teaching, I honestly believe that I did not learn one thing in an education course that actually helped me in teaching" (p. 336).

It is difficult to judge the overall validity of the charge that education courses fail to provide the novice with the practical knowledge and skills that are needed on the job, but many people – both within and outside the teacher education establishment – believe this criticism to be valid. For example, among the folklore of the cooperating teachers who work with student teachers is the tenet that "ivory tower" education professors offer highly abstract and generally unworkable ideas. Kevin Ryan, a well-known teacher educator, observes: "Unlike medical-school professors who teach in clinical settings, professors of education are removed from practice. We're like aging athletes, commenting on a game that we haven't played in a long time" (quoted by Leslie and Lewis 1990, p. 58). A substantial amount of interview and survey data, gathered over a number of years, tends to reinforce the view that beginning teachers believe that their professional studies were basically impractical, except for student teaching (see Dornbusch and Scott 1975; Hermanowicz 1966).

A few years ago Judith Bodenhausen, a classroom teacher, proposed giving teacher preparation more relevance to the real needs of

classroom teachers by requiring professors of education to "be no more than three semesters removed from precollegiate teaching" (1986, p. 19). Bodenhausen also proposed that pedagogical training be more focused on teaching youngsters in classrooms and less on university-based courses on teaching methods.

Segmented Education Courses

Both supporters and critics of teacher education often agree that education courses have little relationship to one another. Two factors help to explain why teacher education programs have become so fragmented: defining courses in terms of specialized knowledge and giving authority over these courses to individual departments in the college of education (Tom 1987).

Professional courses in teacher education are composed of several types of specialized knowledge. The typical teacher education student takes separate courses in educational psychology, social foundations, and generic and subject-specific methods before engaging in student teaching. These specialized courses, sometimes supplemented by the study of mainstreaming or multicultural education, are taken by all prospective teachers, though sometimes with differing degrees of emphasis at the elementary and secondary levels. Thus course fragmentation in teacher education programs occurs because course boundaries tend to be coterminous with types of specialized knowledge.

Segmentation by specialized knowledge is reinforced by a second type of segmentation that is organizational in nature. In the typical college of education, the types of specialized knowledge in the teacher education curriculum are also formalized into departments. Thus educational psychology courses are taught by faculty in the educational psychology department; methods courses in the various subject areas are taught by faculty in the curriculum and instruction department; social foundations courses are taught by faculty in the social foundations department; and so forth. Student teaching, having

no specialized content but involving field work done off campus, is generally the province of the lowest-status teaching personnel: graduate students and adjunct instructors.

When professional courses are partitioned by type of specialized knowledge, with these divisions being reified into departments, enormous practical and intellectual boundaries are created among faculty in a teacher education program. Natural patterns of intellectual discourse among faculty tend to follow along the lines of specialized knowledge, especially in research-intensive universities where production of specialized knowledge is the primary institutional value. As a result, a faculty member who specializes in English education or in child development may feel more affinity for – perhaps even have more contact with – a comparable specialist halfway across the country than with colleagues with different specializations two doors down the hall.

The basic unit of institutional governance in colleges of education is the department, with control over such career-related decisions as hiring and promotion, setting teaching loads, and establishing salaries. Moreover, the size of a department's faculty is greatly influenced by how many units of each prospective teacher's program must be taken in that particular department, a situation that fosters interdepartmental conflict.

This kind of segmentation may seem to be the obvious way to structure the professional curriculum in a rigidly deparmentalized college of education, but there are alternative structures such as organizing professional study around teaching competencies or around common problems of teaching practice. Programs that overcome curricular segmentation usually are located either in small institutions that have a single department of education or in large institutions that have deliberately created small programs under the direction of a team of faculty members drawn from several departments (Goodlad 1990*a*; Howey and Zimpher 1989).

Directionless Education Courses

Related to, and complicated by, the segmentation of teacher education courses is the tendency for these courses not to be grounded in an agreed-on set of educational purposes and assumptions; thus the professional program as a whole is directionless (or more accurately, multi-directional, with each instructor blazing a separate trail).

Of the four criticisms, this one is the hardest to discuss and evaluate, partly because the alternatives can be conceptualized in a variety of ways and partly because so little thought has been given to why a program ought to embody an identifiable common direction in the first place.

Some teacher educators believe that the professional program needs a common direction in order to assess the impact the program has on the attitudes, knowledge, and skills of prospective teachers (and in turn, the impact these teachers have on their students' learning). From this stance, direction refers to agreed-on goals, content, processes, and outcomes for teacher education students, with the ultimate goal being to vary these factors systematically to find out which ones are most effective in improving the performance of teachers (Ashton and Crocker 1987). The results of such studies of "alternative approaches to teacher education can provide the needed empirical basis for the identification of effective (and ineffective) practices in the preparation of teachers of the future" (p. 7). Thus, the most effective teacher education approaches – with effectiveness ultimately measured in student learning – ought to be widely adopted.

The major problem with defining direction in teacher education as a tightly integrated set of goals, content, processes, and outcomes is that it treats teaching and learning as a simple set of skills to be mastered. However, teaching is inherently an uncertain activity. To focus heavily on outcomes – either the mastery of teaching practices by prospective teachers or the cognitive and affective achievement of students – ignores the twists and turns involved in teaching and learning.

Although outcome-oriented approaches are not adequate for judging the quality of teacher education programs, neither can we accept segmented curricula that expose prospective teachers to nothing more than encapsulated bodies of professional knowledge taught according to the whim of individual instructors. So what kind of direction is reasonable both for holding a teacher education program together and for introducing novice teachers to the uncertainties of teaching? Is there a balance between tightly integrated programs that fail to acknowledge the uncertainty of teaching and segmented or disjointed courses that provide no overall direction or, more likely, convey a sense of "capriciousness and meaningless babble in a course of study" (Floden and Buchmann 1990, p. 305)?

Floden and Buchmann suggest that we think about the teacher education curriculum neither as a predetermined set of outcomes nor as a scattershot effort. Instead, they propose that the proper approach to coherence in a teacher education program results from "imagining a web of beliefs that teachers should possess at the end of the program" (p. 313). Floden and Buchmann continue:

> A program that briefly exposes students to a large number of disparate topics runs the danger of leading to a web with so few connections among its nodes that students cannot build connection themselves and that many parts of the web can never be recalled. A program that tries to tie up all loose ends may lead to a tough web that is densely interconnected, but which has such a smooth boundary and filled-in texture that it admits few possibilities for making new connections to disparate events or information. (p. 313)

Floden and Buchmann conclude that the "desirable program" helps prospective teachers "build interconnections among the various areas of knowledge and skill" yet has "numerous loose ends, inviting a reweaving of beliefs and ties to what may be as yet unknown" (p. 313).

Commentary on the Four Criticisms

In many ways the four criticisms of professional education courses are devastating, even though one or two are certainly open to challenge. The criticism most open to challenge is the claim that education courses are vapid. In recent years the rigor of education courses seems to compare more favorably with other areas of undergraduate study than was the case 30 years ago. Yet it is important to note that the entire undergraduate curriculum, including majors in the arts and sciences as well as general education, is currently being widely criticized. According to one recent report (Association of American Colleges 1990; Mooney 1991), undergraduate arts and sciences courses are too often offered in cafeteria-like style and frequently do not require in-depth study, such as research projects. Moreover, instruction often occurs in large lecture formats that make students passive rather than active learners. Perhaps the improved relative standing of education courses vis-a-vis other undergraduate offerings merely represents a broad decline in the rigor and quality of the overall undergraduate curriculum.

That education courses are often viewed as impractical by beginning teachers appears to be a well-founded concern. Although much of the supporting documentation consists of personal testimony, there is also substantial survey evidence, over a long period of time, to support this interpretation. While some of this impracticality no doubt occurs because professors who possess specialized knowledge tend to want to teach that knowledge, even when it makes little sense to novices, the perceived impracticality of education courses also may derive from teaching this specialized knowledge prior to and largely separate from teaching practice (Cohn 1981; McPhie 1967; Sigel 1990; Tom 1987).

The criticisms that education courses are segmented and often directionless are in many ways interrelated. The intellectual and organizational factors that foster a segmented curriculum – the tendency in colleges of education to organize both courses and departments around

categories of specialized knowledge – are also factors that lead most professional programs to be directionless, without any sense of coherence. Clearly, the structure of the typical college of education impedes the development of coherent programs, even the modest form of coherence envisioned by Floden and Buchmann in which a balance is struck between a predetermined set of outcomes and encapsulated courses taught by faculty with highly specialized areas of expertise.

These four common criticisms are by no means the only ones that have been directed at education courses, but they do represent prominent and enduring criticisms that are of interest to one or more important constituencies. The rigor issue, for example, has been a long-term concern for many arts and sciences faculty and also for many teacher education students. The impracticality issue is a particularly salient one for beginning elementary and secondary teachers. Both the segmentation and directionless issues trouble many professors and administrators of teacher education who have responsibility for designing programs. Also, teacher education students are sometimes concerned about the segmentation issue, especially when they experience overlapping content across education courses.

Proposals for Reforming Professional Education

Typically, controversies over the reform of teacher education entail debates about which solution is the best one. For example, should we institute a model similar to the one Conant advocated in the 1960s? Should we place increased emphasis on the results from research on teaching (Gage 1978; Good 1990; Reynolds 1989)? Or, more radically, should we adopt alternative certification approaches in which education courses are curtailed or eliminated and the major professional preparation is on-the-job training with an experienced teacher mentor? Other models include "social reconstructionist" efforts, in which "both schooling and teacher education [are seen] as crucial elements in a movement toward a more just society" (Liston and Zeichner 1991, p. 26), and John Goodlad's (1990*a*) advocacy of collaborative efforts among professors of education, public school personnel, and professors in the arts and sciences.

Measuring various reform proposals against the four criticisms discussed in the last chapter provides a common basis for judging the value of particular proposals. In addition, focusing on those four criticisms may help ensure that the adoption of a reform ultimately will have a practical impact on specific problems. The lack of faith in teacher education is so pervasive that the failure of any reform proposal to address persisting criticisms amounts, in my view, to basically destroying the case for that proposal, no matter how glorious its rationale and conception.

The three reform proposals that I have selected to test against the commonly held criticisms are the academic model, essentially unchanged since Conant's formulation and once again a quite popular proposal; the research on teaching model, associated with the knowledge-base movement of the 1980s; and Goodlad's collaborative model, an approach that rests heavily on a structural innovation he calls a "center of pedagogy." I have selected these three models from among the many available because they currently are receiving extensive attention and support, one from inside the teacher education establishment (the research on teaching model), another from diverse sources both inside and outside the establishment (Goodlad's collaborative model), and a third from outside the establishment (the academic model).

The Academic Model

Educators outside the teacher education establishment – especially arts and sciences professors – persist in their doubts about the value of education courses, though we lack the kind of opinion survey data about their beliefs that are available on opinions of teacher education students. As in Conant's time, many academic professors today disdain education courses; and they often seem annoyed, if not offended, by the attempt of professors of education to claim special expertise concerning the art of teaching. Not only do these critics appear unconvinced that the quality of teacher education courses has improved, they also seem to deny the possibility that education courses could ever be rigorous.

Critics invoking the academic model continue to believe that knowledge of content is the fundamental ingredient of good teaching. For example, Peter Hilton (1990), a mathematician, argues that "no student should be deterred from becoming a teacher or denied provisional certification for want of credit in pedagogical courses" (p. 131). Similarly, Richard Lloyd-Jones (1990), an English professor, asserts that "the essential question for identifying a teacher of English is

whether the person is alive to language." Margret Buchmann (1984) provides additional justification for emphasizing content knowledge in initial teacher preparation, including the capacity of subject matter expertise to legitimate teacher authority and the likelihood that this expertise will reduce classroom management problems.

According to the academic reform model, teaching is inextricably intertwined with subject matter; thus there is no compelling justification for such courses as general methods or any other generic study of teaching. Such courses, at best, amount to common sense, a characterization that goes back at least to Flexner's biting observation, now 50 years old, that "education is not a science; it is a complex of problems, in the solution of which horse sense and insight will do more than curves and data, though of course accurate information must lie at the basis of the structure" (Flexner 1940, pp. 246-47).

If the academic model should be adopted widely, the current tripartite division of responsibility for teacher preparation – professors of arts and sciences, professors of education, and cooperating teachers in the elementary and secondary schools – would be replaced by a simplified structure that largely, if not totally, omits professors of education. The roles of the education professoriate would in part be abandoned (many education courses would simply disappear) and would in part be absorbed either by classroom teachers (supervision of extended internships and teaching subject-specific methods courses) or by academic professors (supervision of student teachers and instruction in the history, philosophy, or sociology of the teaching profession). There might remain a limited need for professors of education, especially for elementary teachers who might profit, as Conant suggested, from a course on child growth and development.

The rapid disintegration of the education professoriate, even its disappearance from universities, is quite possible. Indeed, this professorial group had a precipitous origin as measured in historical terms, due in large part to the rapid expansion of the high school teaching force in the late nineteenth and early twentieth centuries, a time when

there were not enough "highly qualified practitioners to prepare the necessary number of novices through an apprenticeship system" (Borrowman 1975, p. 58). The development of a specialized cadre of trainers subsequently led to the creation of teacher education programs in universities; professors of education essentially are the descendants of the cadre.

In contrast to the negative view of professors of education held by other members of the academy, classroom teachers are ambivalent toward these professors. Practitioners are well aware that it takes much more than common sense to teach in contemporary elementary and secondary schools. Yet "most teachers believe that they acquired their most important insights on the job and that they could provide an apprenticeship situation which would be more valuable to novice teachers than the instruction provided by professors [of education]" (Borrowman 1975, p. 59). This ambivalence has increased as professors of education have retreated from practice in schools and have endeavored to become academically respectable within the university by focusing their efforts on building a knowledge base for teaching.

The Research on Teaching Model

Just as the academic model represents a long-standing reform tradition, what I have termed the "research on teaching" model is a contemporary manifestation of another reform tradition. This tradition, according to Zeichner and Liston (1990), is one of "social efficiency" characterized by "faith in the power of the scientific study of teaching to provide the basis for building a teacher education curriculum" (p. 7). All through the twentieth century, social efficiency has been the dominant reform tradition within the education establishment, not only in teacher education but also in the overall field of curriculum (Kliebard 1986).

This tradition was rooted in the conviction of many turn-of-the-century researchers that research would lead to the development of a science of education. Edward L. Thorndike, a pioneering educa-

tional psychologist and the leading proponent for creating a science of education, passionately believed that "education, like . . . the other sciences of man, is just beginning to give promise of quantitative knowledge, of descriptions of facts as numerically defined amounts, and of relations or laws in terms of rigid, unambiguous equations" (quoted in Tom 1984, p. 13).

Researchers, of course, never did discover any "rigid, unambiguous equations" in their studies of teaching and learning. However, the scientific study of teaching continues unabated, with researchers now pursuing more modest outcomes than the discovery of educational laws that hold true in all circumstances. Now education researchers often claim that effective teaching, just as with the practice of medicine or engineering, requires a knowledge of "concepts, or variables, and their interrelations in the form of strong or weak laws, generalizations, or trends" (Gage 1978, p. 18). Gage argued that in order to achieve a scientific base for teaching, we need to know "whether the teacher's thinking, behaving, acting – in short, teaching – in one way is demonstrably better in terms of some values or purposes than teaching in another way. If the answer is yes, we have a basis for improving teaching and the training of teachers" (p. 230). However, if the answer is no, then we have no scientific basis for teaching and "every teacher must use his or her personal common sense, intuition, insight, or art, with no guidance from any relationships or regularities that may have been laid bare through scientific methods" (p. 24).

The question remains whether a scientific basis for teaching can be created and whether the findings from these inquiries can be codified into a rigorous and practical curriculum. Many reviews of research on teaching have been conducted during the 1970s and 1980s (see Berliner 1976; Brophy and Good 1986), but these reviews were primarily addressed to other researchers and did not have much impact on the teacher education curriculum. Moreover, some critics (Hansgen 1991; Schneider 1987; Tom 1984) have challenged how

much knowledge has been generated by this search for the secrets of effective teaching. One of the most telling criticisms of the research on teaching effectiveness comes from Lee Shulman (1987), who argues that the narrow focus of the teaching-effectiveness research omits important contextual features of actual teaching practice, such as the subject matter being taught, the classroom context, and pupil characteristics. By omitting these important contextual features, Shulman believes that much research on teaching becomes reductionist.

Yet many researchers on teaching continue to seek generalizations that might identify relationships among generic teaching and learning variables and thus provide a foundation for the curriculum-building activities of teacher educators. In his recent essay titled "Building the Knowledge Base of Teaching," Thomas L. Good (1990), a respected researcher on teaching effectiveness, states his purpose as being to refute the misconception that "there is no professional knowledge base on which to design teacher education programs" (p. 17). Good reviews the findings from recent research on teaching, ranging from teacher expectations and student motivation to classroom organization and management. For these and other related areas, Good contends that a substantial body of research findings do indeed exist and that progress has been made toward "the development of a coherent knowledge base" (p. 66), although he makes quite modest claims about the power of these research-based generalizations.

Even if Good avoids the reductionism that Shulman warned against, we still need to ask whether having knowledge about effective teaching practices is the same as having a course syllabus for the study of pedagogy. Good never speaks directly to this curricular issue, but he does discuss some of the difficulties involved in relating current research to teaching practice. Reviewing one of these difficulties can help us see the enormous gap between having knowledge about effective teaching – especially knowledge concerning one aspect of effective teaching – and having a teacher education curriculum.

Good notes, for example, that teaching is a complex activity that involves "countless interacting and changing variables that make

understanding instructional effectiveness a difficult task" (p. 18). Moreover, these numerous variables are often in tension with one another, as when a teacher's attempt to increase the quality of students' answers by extending the "wait time" after a question (an action consistent with research findings) leads to such undesirable outcomes as loss of student attention or even loss of classroom control. Teaching practice is filled with instances of such conflicting relationships or trade-offs among teaching practices (Berlak and Berlak 1981; Lampert 1985). While it is admirable that researchers on teaching seek to avoid the alleged impractical nature of professional study by developing a scientific basis for pedagogy, they have not been able to conduct their inquiries in a way that captures the complex interconnection of variables in the classroom.

One major implication of adopting the teaching-effectiveness variant of the research on teaching model would be to replace the content currently in general methods courses with research-based content on teacher planning, instructional techniques, and classroom management. To accomplish this task, a number of authors have prepared textbooks that codify the results of current research on teaching (for example, such texts as Arends 1988; Kauchak and Eggen 1989). Unfortunately, these texts often present teaching as individual and separate decisions or actions (rather than as decisions and actions that are interrelated), just as much of the research on which these texts are based tends to examine teaching one variable at a time.

In contrast to the academic model, proponents of the research on teaching model would not support any radical reduction of the professional education portion of the teacher education curriculum. In fact, many would argue that their model justifies increased attention to professional studies by prospective teachers.

The Collaboration Model

The collaboration model represents, in many ways, a procedural rather than a substantive approach to the reform of teacher educa-

tion. Collaboration in teacher education has occurred in several guises, sometimes in the form of entire preservice programs such as the field-based teacher education efforts of the 1970s (Tom 1988) and sometimes in the form of linking roles such as the clinical professorship popularized by Conant in the 1960s (Tom 1974). It is important to note that these earlier forms of role-based and programmatic collaboration between professors of education on campus and cooperating teachers in the schools were never widely implemented. Teacher education has yet to institutionalize the collaborative equivalent of the teaching hospital in medical education, although proposals for doing so are on the planning board.

Goodlad has proposed the "center of pedagogy," a form of collaboration, as the centerpiece for his teacher education reforms (1990*b*). But before exploring the nature of this model, we need to summarize the substantive agenda that is to be the work of a center of pedagogy.

In his study, *Teachers for Our Nation's Schools*, Goodlad and his staff examined a sample of 29 teacher education programs and concluded that the conditions for the vigorous conduct of teacher education were frequently absent in these programs. To remedy this situation, Goodlad proposed 19 postulates that might make the regeneration of teacher education possible. These postulates include such conditions as strong institutional commitment to and support for teacher education, teacher education programs that are organizationally and budgetarily autonomous, a clearly identifiable group of academic and clinical faculty with full responsibility for student selection and curriculum design, a teacher education faculty with a comprehensive view of the aims of education and the role of schools in our society, and teacher candidates who are informed about and able to bring about alternative forms of schooling, among others.

Goodlad claims that these postulates are neither "goals to be striven toward nor hypotheses to be tested through empirical research" (1990*b*, p. 191) but rather are "moral imperatives" deduced through "reasoned argument with respect to what is right and just" in order

to realize a particular conception of teaching (1990*a*, p. 53). Goodlad's conception of teaching goes beyond a concern with classroom pedagogy and disciplined forms of knowledge to also include political enculturation and school renewal. In large part, the 19 postulates do seem to flow from the broad conception of teaching that Goodlad advocates. In addition, Goodlad's broad conception of teaching provides substantial direction for the study of professional education.

Goodlad's major organizational mechanism for implementing the 19 postulates is the center of pedagogy, initially described in an article preceding the publication of his book:

> The centerpiece of our recommendations is the creation of a "center of pedagogy," devoted exclusively to the preparation of educators for our schools and to the advancement of pedagogy. It should be clear in its mission and autonomous with respect to faculty and budget, including availability and funding of the necessary laboratory resources. It should have clearly defined boundaries and a student body that shares an educational purpose. (1990*b*, p. 192)

Goodlad strongly recommends the creation of school-university partnerships to provide a supportive infrastructure for such centers, and he further endorses the collaborative development of professional development schools. The centers of pedagogy could be located inside or outside the existing college of education; the critical point is for such centers to have a clear professional preparation mission and the autonomy and budget to carry out that mission.

Unfortunately, Goodlad's book, *Teachers for Our Nation's Schools*, has few details about the centers of pedagogy beyond the sparse description in the overview article cited above. Goodlad does emphasize that the resources for teacher education must not go to the "larger, multi-purpose unit of which teacher education is a part" – apparently referring to the college of education where resources "run the danger of being impounded by entrepreneurial program heads and faculty members" (Goodlad 1990*a*, p. 152). Goodlad further argues that foundational instruction must be provided by educational psy-

chologists and other faculty for whom this work is not a secondary interest but rather a "high priority," and that such personnel should be recruited by the teacher education faculty and paid out of the teacher education budget. "Otherwise," notes Goodlad, "teacher education will remain an orphan dependent on charity and goodwill" (p. 153).

In addressing the need for an autonomous center for pedagogy, containing professors of education representing various forms of specialization, Goodlad shows great sensitivity to the segmentation issue resulting from a departmental basis for the teacher education curriculum, an issue ignored by both the academic and the research on teaching models of reform. Goodlad also suggests that professors of arts and sciences ought to be in the center for pedagogy, addressing the large gulf that tends to exist between the professional course of study and the study of subject matter. Goodlad also envisions that classroom teachers should be on the staff of a center for pedagogy, addressing the criticism that education courses are impractical.

However, Goodlad is not specific about the structure and function of a center for pedagogy and does not discuss in any detail one of the major missions of a center, the advancement of pedagogy as a field of study. Although Goodlad acknowledges borrowing the center of pedagogy concept from B.O. Smith's (1980*a* and *b*) original conceptualization of a "school of pedagogy," he does not note that Smith elaborated the concept in some detail and identified substantial barriers to its implementation, barriers so severe that such schools might have to be created outside the university (Gore 1981). Smith's concept of a school of pedagogy was more as a technical teacher education derived from classroom research and practice. Thus it may be closer to the research on teaching model than to Goodlad's collaborative model.

Commentary on the Three Teacher Education Reform Models

My analysis of the three models of professional education as related to the four common criticisms of teacher education reveals substantially different implications. For example, the argument by proponents of the academic reform model that courses in pedagogy lack rigor is really an argument that they are just common sense and thus are not legitimately part of the university curriculum. Further, the view of the academic reform model is not so much that pedagogy courses are impractical as that they are unnecessary; common sense and a little time to learn teaching on the job is sufficient. Finally, the academic reform model is unconcerned about segmented education courses – most of which should be eliminated anyway – and the issue of direction in teacher education is resolved by focusing the preparation of teachers solely on their role as instructors in the traditional school subjects.

The research on teaching reform model addresses the criticism of impracticality by seeking to generate a knowledge base for teaching, a collection of generalizations about how particular teaching-learning variables are connected. In contrast to the commonsense view of teaching by proponents of the academic model, researchers on teaching have studied a variety of individual variables and have succeeded in generating dozens of findings. But these isolated findings about pairs of variables provide little help to the teacher who must cope on a daily basis with multiple, interrelated variables. At the same time, this model's emphasis on research on classroom phenomena fails to address the issue of segmentation. Indeed, the detailed focus on classroom interaction typical of this research probably exacerbates segmentation. Last, the research on teaching perspective has nothing to say about the direction issue, as the goals of teaching are seen as a matter of personal preference (Gage 1978).

While the academic and research on teaching models ignore the issues of curricular segmentation and lack of direction, Goodlad's col-

laboration model is centrally concerned with both breaking down the fragmentation that divides professors of education from school practitioners and that separates both of these groups from arts and sciences professors and with providing direction for the teacher education curriculum. Goodlad's conception of good teaching goes substantially beyond making teachers informed about teaching techniques (the major focus of the research on teaching model) or school subjects (the major focus of the academic model). It includes preparing teachers to engage in continual school renewal to socialize the young into a political democracy.

The key factor in the center of pedagogy idea is a broadly constituted staff, including appropriate professors of education, significant numbers of classroom teachers, and arts and sciences professors. Goodlad proposes how the center's staff might be so constituted in an imaginary case study at the end of his book (Goodlad 1990*a*). In addition, Goodlad's belief that the center should advance the study of pedagogy should ensure against a merely technical approach to teacher preparation, although Goodlad never addresses the forms of inquiry about pedagogy that might occur within the center.

Which Future for Professional Education?

In comparing the three reform models, Goodlad's collaborative model deals with more of the common criticisms of professional teacher education than do the other two models. In particular, Goodlad is much stronger on the issue of direction when he argues that the content of a teacher education curriculum needs to be consciously and deliberately tied to a conception of schoolteaching. Moreover, Goodlad's call for collaboration among traditionally autonomous groups in a center of pedagogy addresses the issue of segmentation existing in teacher education programs, even if he is not very specific about the organization and operation of such a center.

My analysis here of the merits of the three reform models may have less to do with which model reflects the best way to restructure teacher education than it does with helping to understand why reform proposals have had so little impact on the teacher education curriculum. The three reform models reviewed here are frequently focused on very different issues, and advocates of each model tend not even to engage one another's arguments, let alone come to points of resolution. Even when a common concern is addressed, the answers often are mutually exclusive. For example, the research on teaching proponents' response to the charge that pedagogy courses are impractical is to develop a knowledge base on teaching derived through the scientific study of pedagogy, while proponents of the academic model would respond to that same charge by increased reliance on apprenticeships and related training experiences.

Ultimately, the restructuring issue is likely to become not so much a reasoned choice among carefully thought-out policy options as it is a political struggle among contending power groups. In this struggle, professors of education are politically vulnerable – inside as well as outside higher education. At the same time, the academic model – after years of relative obscurity – is once again back on center stage with powerful political support for the reduction, if not the elimination, of professional study for teachers. In particular, alternative certification programs are being widely discussed and established. Whether a collaborative approach to teacher education can bring together the forces that currently are divided into the academic and research on teaching camps is problematic, but such a development may well be the best opportunity to retain and renew professional education for teachers.

References

Arends, R.I. *Learning to Teach*. New York: Random House, 1988.

Ashton, P., and Crocker, L. "Systematic Study of Planned Variations: The Essential Focus of Teacher Education Reform." *Journal of Teacher Education* 38, no. 3 (1987): 2-8.

Association of American Colleges. *Liberal Learning and the Arts and Sciences Major*. vols. 1-2. Washington, D.C., 1990.

Berlak, A., and Berlak, H. *The Dilemmas of Schooling*. London: Methuen, 1981.

Berliner, D.C. "A Status Report on the Study of Teacher Effectiveness." *Journal of Research in Science Teaching* 13 (1976): 369-82.

Bodenhausen, J. "Thoughts from the Lounge." *Education Week*, 21 May 1986, p. 19.

Borrowman, M.L. "About Professors of Education." In *The Professor of Education: An Assessment of Conditions*, edited by A. Bagley. Minneapolis: Society of Professors of Education, College of Education, University of Minnesota, 1975.

Brophy, J.E., and Good, T.L. "Teacher Behavior and Student Achievement." In *Handbook of Research on Teaching*, 3rd ed., edited by M.C. Wittrock. New York: Macmillan, 1986.

Buchmann, M. "The Priority of Knowledge and Understanding in Teaching." In *Advances in Teacher Education*, vol. 1, edited by J.D. Raths and L.G. Katz. Norwood, N.J.: Ablex, 1984.

Cohn, M. "A New Supervision Model for Linking Theory to Practice." *Journal of Teacher Education* 32, no. 3 (1981): 26-30.

Conant, J.B. *The Education of American Teachers*. New York: McGraw-Hill, 1963.

Dornbusch, S.M., and Scott, W.R. *Evaluation and the Exercise of Authority*. San Francisco: Jossey-Bass, 1975.

Flexner, A. *I Remember: The Autobiography of Abraham Flexner*. New York: Simon and Schuster, 1940.

Floden, R.E., and Buchmann, M. "Coherent Programs in Teacher Education: When Are They Educational?" In *Philosophy of Education 1990*, edited by D.P. Ericson. Normal, Ill.: Philosophy of Education Society, 1990.

Gage, N.L. *The Scientific Basis of the Art of Teaching*. New York: Teachers College Press, 1978.

Good, T.L. "Building the Knowledge Base of Teaching." In *What Teachers Need to Know: The Knowledge, Skills, and Values Essential to Good Teaching*, edited by D.D. Dill et al. San Francisco: Jossey-Bass, 1990.

Goodlad, J.I. *Teachers for Our Nation's Schools*. San Francisco: Jossey-Bass, 1990. a

Goodlad, J.I. "Better Teachers for Our Nation's Schools." *Phi Delta Kappan* 72 (November 1990): 185-94. b

Gore, J. "Collegial Ambience: Its Necessity in Teacher Education." *Journal of Teacher Education* 32, no. 3 (1981): 37-39.

Hansgen, R.D. "Can Education Become a Science?" *Phi Delta Kappan* 72 (May 1991): 689-94.

Hermanowicz, H.J. "The Pluralistic World of the Beginning Teacher: A Summary of Interview Studies." In *The Real World of the Beginning Teacher*. Washington, D.C.: National Commission on Teacher Education and Professional Standards, 1966. ERIC No. ED 030 616

Hilton, P.J. "What Teachers Need to Know About Mathematics." In *What Teachers Need to Know: The Knowledge, Skills, and Values Essential to Good Teaching*, edited by D.D. Dill et al. San Francisco: Jossey-Bass, 1990.

Howey, K.R. "Research About Teacher Education: Programs of Teacher Education." *Journal of Teacher Education* 40, no. 66 (1989): 23-26.

Howey, K.R., and Zimpher, N.L. *Profiles of Preservice Teacher Education: Inquiry into the Nature of Programs*. Albany: State University of New York Press, 1989.

Kauchak, D.P., and Eggen, P.D. *Learning and Teaching: Research Based Methods*. Boston: Allyn and Bacon, 1989.

Kliebard, H.M. *The Struggle for the American Curriculum, 1893-1958*. Boston: Routledge & Kegan Paul, 1986.

Koerner, J.D. *The Miseducation of American Teachers*. Boston: Houghton Mifflin, 1963.

Lampert, M. "How Do Teachers Manage to Teach? Perspectives on Problems in Practice." *Harvard Educational Review* 55 (1985): 178-94.

Leslie, C., and Lewis, S. "The Failure of Teacher Education." *Newsweek*, 1 October 1990, pp. 58-60.

Liston, D.P., and Zeichner, K.M. *Teacher Education and the Social Conditions of Schooling*. New York: Routledge, 1991.

Lloyd-Jones, R. "What Teachers Need to Know About English." In *What Teachers Need to Know: The Knowledge, Skills, and Values Essential to Good Teaching*, edited by D.D. Dill et al. San Francisco: Jossey-Bass, 1990.

Lyndaker, W. "Educator's Advice." *Newsweek*, 22 October 1990, Letter to the Editor, p. 12.

McPhie, W.E. "Mickey Mouse and Teacher Education." *Journal of Teacher Education* 18, no. 3 (1967): 321-24.

Mooney, C. "Crowded Classes, Student-Advising System Are Targets of Report on Liberal Learning." *Chronicle of Higher Education*, 9 January 1991, pp. A1, A40.

Reynolds, M.C., ed. *Knowledge Base for the Beginning Teacher*. Oxford, England: Pergamon, 1989.

Schneider, B.L. "Tracing the Provenance of Teacher Education." In *Critical Studies in Teacher Education*, edited by T.S. Popkewitz. London: Falmer, 1987.

Shulman, L.S. "Knowledge and Teaching: Foundations of the New Reform." *Harvard Educational Review* 57 (1987): 1-22.

Sigel, I.E. "What Teachers Need to Know About Human Development." In *What Teachers Need to Know: The Knowledge, Skills, and Values Essential to Good Teaching*, edited by D.D. Dill et al. San Francisco: Jossey-Bass, 1990.

Smith, B.O. *A Design for a School of Pedagogy*. Publication No. E-80-42000. Washington, D.C.: U.S. Government Printing Office, 1980. a

Smith, B.O. "Pedagogical Education: How About Reform?" *Phi Delta Kappan* 62 (October 1980): 87-91. b

Tom, A.R. "The Clinical Professorship: Failure or First Step." *The High School Journal* 57 (1974): 250-57.

Tom, A.R. *Teaching as a Moral Craft*. New York: Longman, 1984.

Tom, A.R. "What Are the Fundamental Problems in the Professional Education of Teachers?" In *Proceedings of the Conference on Excellence in Teacher Education Through the Liberal Arts*, edited by A. Wonsiewicz and M.J. Carbone. Allentown, Pa.: Muhlenberg College Education Department, 1987.

Tom, A.R. "The Practical Art of Redesigning Teacher Education: Teacher Education Reform at Washington University, 1970-1975." *Peabody Journal of Education* 65, no. 2 (1988): 158-79.

Zeichner, K.M. "Understanding the Character and Quality of the Academic and Professional Components of Teacher Education." Paper presented to the annual meeting of the American Educational Research Association, New Orleans, April 1988.

Zeichner, K.M., and Liston, D.P. "Traditions of Reform in U.S. Teacher Education." *Journal of Teacher Education* 41, no. 2 (1990): 3-20.

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